Jasminum jenniae (Oleaceae), a new species from south eastern Queensland

Wayne K. Harris & Glenn Holmes

Summary

Harris, Wayne K. & Holmes, Glenn (1999). *Jasminum jenniae* (Oleaceae), a new species from south eastern Queensland. *Austrobaileya* 5(2): 341–344. *Jasminum jenniae* sp. nov. is described, illustrated and compared to related species. Notes are provided on its distribution, habitat and conservation status. A key to the south eastern Queensland species of *Jasminum* is provided.

Key words: Oleaceae, *Jasminum jenniae*

Wayne K. Harris, Department of Botany, The University of Queensland, St. Lucia Queensland, 4072, Australia

Glenn Holmes, P.O. Box 1246 Atherton, Queensland, 4883, Australia

Introduction

The genus *Jasminum* L. in Australia consists of eight species and a number of subspecies and was most recently revised by Green (1984). The genus is widely distributed throughout eastern and northern Australia and two species extend further westwards. *J. calcareum* F.Muell. extends from central Australia through to Western Australia. *J. didymum* subsp. *lineare* (R.Br.) P.S.Green is the most widespread extending west from the Great Dividing Range in eastern Australia through central Australia and into the northern parts of Western Australia south of the Kimberley. The species described here has a limited distribution in south-eastern Queensland where four species have been previously enumerated including *J. jenniae* as an undescribed species (Stanley and Ross 1986).

Jasminum jenniae W.K. Harris & G. Holmes, **sp. nov.** affinis *J. aemulo* var. *brassii* P.S. Green autem floribus parvioribus tubo 9–12mm longo lobis 7–10mm longis; calyce pedicelloque glabro; foliis simplicibus oppositis venatione acrodroma, petiolo versus laminae basem articulato differt. **Typus:** Queensland. Moreton District: Headwaters of south branch of Kobble Ck, D’Aguilar Range, 27°17’S 152°46’E; 22 Nov. 1997, *S. Phillips* 143: (holo: BRI).

Evergreen shrub to about 4 m, multistemmed, straggling to prostrate; stem puberulent to glabrous. Leaves opposite, simple; petioles 3–5 mm long, sparsely puberulent to glabrous, articulated near base of lamina, sometimes a second articulation is present on the upper third of the petiole; lamina coriaceous, ovate to broadly ovate, glabrous, glossy, discolorous, (4.0–)4.5–6.5(–8.5) cm long and (1.3–)2.5–4.2(–5.8) cm wide; margin entire not thickened, slightly recurved; apex acute to acuminate; base attenuate into the petiole; venation raised above and below, acrodromous with nerves clearly visible on both surfaces, the first two or three starting at the base of the lamina and extending to the apex; other secondary venation (3–)5–7 per side and terminating at the veins originating from the base of the lamina; base of leaf pairs often forming a prominent ridge around the stem. Inflorescence terminal or on axillary side shoots, subumbellate, (1–) 3(–7)- flowered, flowers perfumed, bracts linear subulate, puberulent 3–6 mm long; pedicels 6–18 mm long, glabrous. Calyx glabrous, tube 2–3 mm long with 4 or 5 linear subulate teeth 4.5–10 mm long. Corolla hypocrateriform; pale pink on the outside, paler pink internally, tube 9–12 mm long with 4–6 lanceolate or narrowly lanceolate, acute lobes, 7–10 mm long. Stamens 2; anthers 3–3.5 mm long, on filaments 0.5–1 mm long, attached to the upper third of the corolla tube, slightly exserted.

Accepted for publication 26 June 1998

Ovary 0.8–1.0 mm long; style about 10 mm long, slightly exserted from the corolla tube, heterostyly not observed; stigma slightly bilobed about 1.5 mm long. Fruit spherical to slightly ovoid, often paired (or single by abortion), 8–10 mm long by 9–11 mm broad, purple-black.

Phenology: Flowering period, November to January, fruits appearing December to April.

Additional specimens examined: **Queensland.** Moreton District: Mt Glorious, Jan 1945, *Clemens s.n.* [AQ47857] (BRI); Brolga Park, 6km W of Woombye, Dec 1989, *Forster et al.*, PIF6146 (BRI); Black Shoot, Lower Beechmont, Nov 1993, *Holmes & Holmes s.n.* [AQ633577] (BRI); Tarlington Rd, Canungra, Sep 1994, *Holmes & Holmes s.n.* [AQ637677] (BRI); South branch of Kobble Creek, Mt Glorious, 27°17'S 152°46'E, Apr 1997, *Phillips* 12 (BRI)

Distribution and habitat: *Jasminum jenniae* has been recorded only from the Blackall, D'Aguilar and Beechmont Ranges. This disjunct distribution extends over 160 km between latitudes 26°38' and 28°05'S. Most records are from the Beechmont Range, in the upper catchments of Black Shoot, Armitage Creek, Back Creek (Killarney Falls) and Clagiraba Creek, between 240m and 475m altitude. Soil parent material is mainly basaltic or metasediments. In the Beechmont Range associated canopy species present at each of four sites included *Araucaria cunninghamii* Aiton ex D. Don, *Lophostemon confertus* (R.Br.) Peter G. Wilson & J.T. Waterh., *Premna lignum-vitae* (A. Cunn. ex Schauer) W. Piep., and *Olea paniculata* R.Br. Plants usually occur near the boundary between araucarian notophyll vineforest and eucalypt forest. Plants of restricted distribution recorded at two of four sites were *Baloghia marmorata* C.T. White, *Cryptocarya foetida* R.T. Baker, *Rhodamnia dumicola* Guymer & Jessup and *Alectryon reticulatus* Radlk. (J. Holmes data).

Diagnostic features: This species is distinguished readily by its ovate, coriaceous, glossy leaves with conspicuous and characteristic leaf venation, its linear subulate calyx teeth and its generally glabrous appearance. The petiole is articulated near the base of the lamina. Infertile material resembles *Strychnos psilosperma* F.Muell. superficially.

Affinities: *J. jenniae* has close affinities with *J. aemulum* var. *brassii* P.S.Green which differs by its larger flowers (corolla tube 19–21 mm long, lobes 15–20 mm long), penninerved leaves, distinct indumentum and location of articulation in the middle of the petiole. Green's (1984) *Jasminum* sp. is also very similar and *Clemens* s.n. [AQ47857] (BRI) was included in this species by him. The species is said to have a ' fine and minutely, if thinly, velutinous indumentum on stem, petioles, lower surface of leaf, inflorescence, and calyx'. Articulation of the petiole occurs in the middle of or in the lower half. The other specimens cited by Green are from north Queensland and are a different species as yet undescribed. The key in Stanley and Ross (1986) also includes a *Jasminum* sp.1 which is in part the species described here and it is clear that they have followed Green's treatment and confused the two species. *J. jenniae* would key out at either *J. aemulum* R.Br. or *J.* sp. in Green's (1984) key. Several other species in the Australasian region have

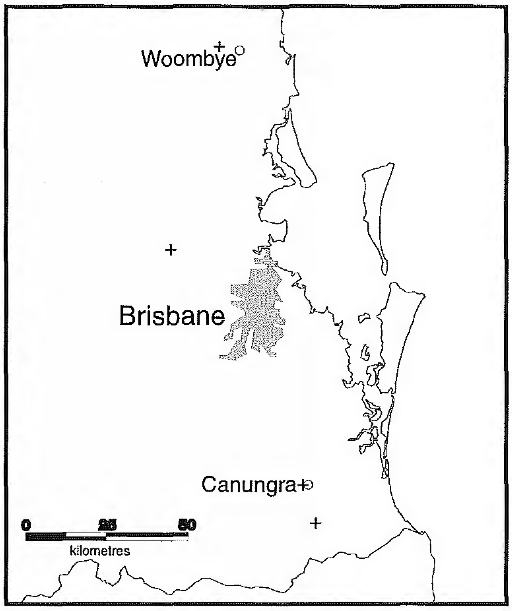

Figure 1. Distribution of *J. jenniae* in south eastern Queensland

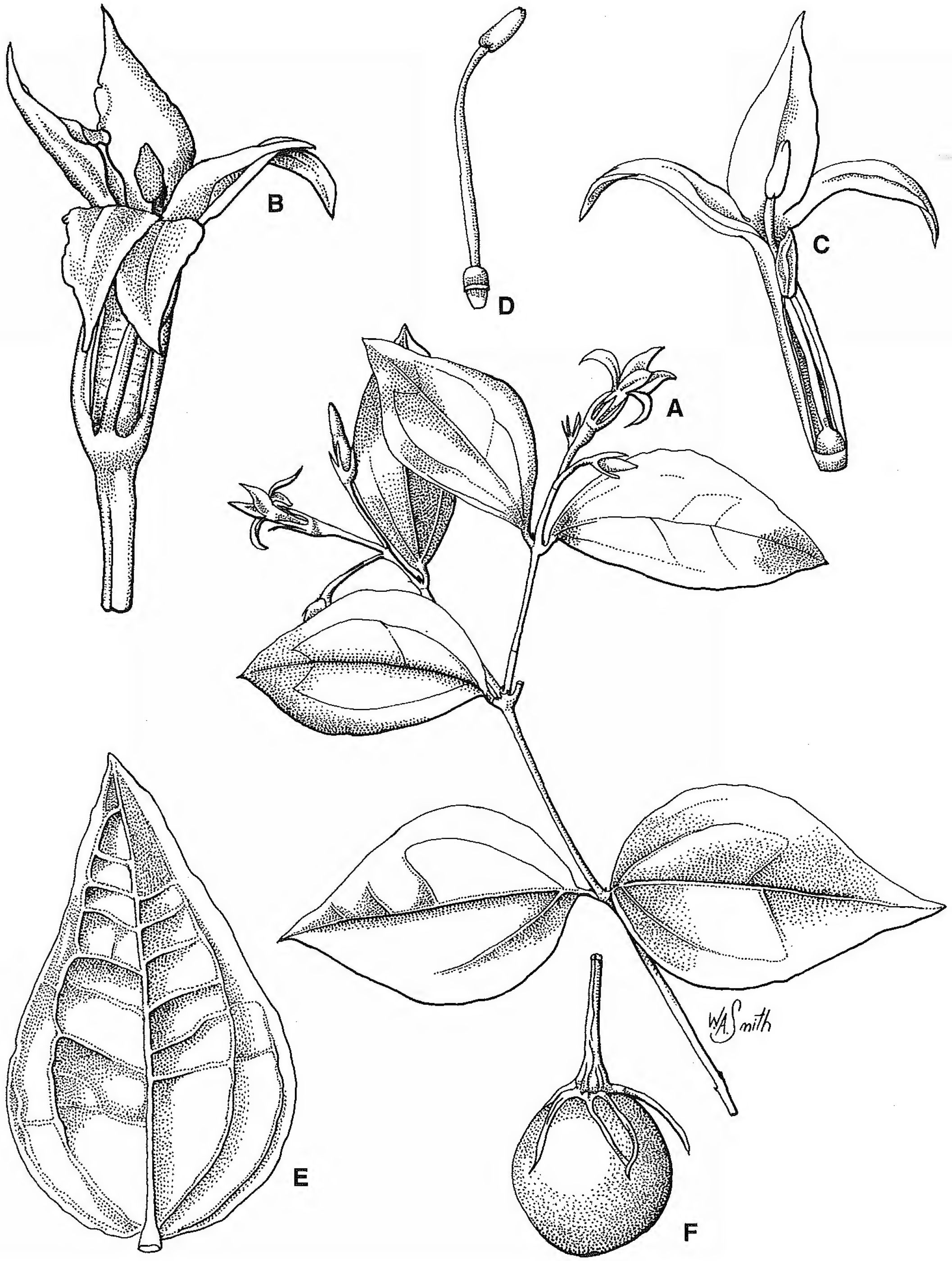

Figure 2. ***Jasminum jenniae*** A. habit × 1. B. flower × 4. C. section of flower × 4. D. gynoecium × 4 E. single leaf showing venation × 1.5. F. fruit × 2. (*Phillips* 143).

simple leaves. In *J. calcareum* F. Muell. the calyx lobes are blunt and the leaves are ovate to linear- lanceolate and in *J. simplicifolium* the leaves are less than 1 cm wide and the calyx lobes are shorter, usually less than 5 mm long. *J. kajewskii* has corolla lobes longer than the tube, in *J. longipetalum* the calyx lobes are more or less triangular and in *J. molle* the calyx lobes are equal to or shorter than the tube. *J. magnificum* Lingelsh. from Papua New Guinea differs in having wider calyx segments and short calyx lobes and much larger flowers and *J. papuasicum* Lingelsh. has pinnately veined leaves. New Caledonian species (Green 1962) with simple leaves are distinct and differ in the details of the calyx lobes which are generally shorter.

Conservation Status: By IUCN (1994) criteria B1 and C, *J. jenniae* is Endangered (EN). The population recorded in the Beechmont Range comprises about 550 plants. Only a few have been recorded elsewhere.

Etymology: The species is named after Jenny Holmes (nee Todd, b. 1952) to recognise her contribution to the knowledge of the flora of south east Queensland and northern New South Wales. During systematic geographic surveys of vine forests she has collected numerous significant specimens.

Key to the *Jasminum* species in S. E. Queensland

1. Leaves simple (1-foliolate) 2
   Leaves 3-foliolate 3

2. Stems, petioles and undersides of leaves glabrous to finely puberulent; leaves 2–5 cm wide; calyx lobes 4 or 5, linear-subulate, 4–10 mm long .... **J. jenniae**
   Stems, petioles and undersides of leaves glabrous or with a few hairs, leaves less than 1 cm wide; calyx lobes up to 4 mm long, rarely 5 mm long .... **J. simplicifolium**

3. Stems, petioles and leaves pubescent-tomentose; inflorescences mostly 1–5-flowered .... **J. dallachii**
   Stems, petioles and leaves glabrous or minutely puberulent; inflorescences mostly 5–50-flowered .... **J. didymum**

Acknowledgements

We thank Dr. G. P. Guymer for provision of facilities at BRI for one of us. Les Pedley provided the Latin diagnosis. Sue Phillips made collections of flowering material of this species from the type locality for the authors.

References

Anon (1994). *IUCN Red List Categories.* International Union for Conservation and Nature, Gland, Switzerland. 21p.

Green, P.S. (1962). Studies in the genus *Jasminum*, II the species from New Caledonia and the Loyalty Islands. *Journal of the Arnold Arboretum* 43 (2): 109-131.

—— (1984). A revision of *Jasminum* in Australia. *Allertonia* 3(6): 403-438.

Stanley, T.D. and Ross, E.M. (1986). *Flora of South-eastern Queensland Volume 2.* Brisbane: Queensland Department of Primary Industries,.Miscellaneous Publication QM 84007.